



Lake Erie Harmful Algal Bloom Bulletin

09 September, 2019, Bulletin 21

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Recent satellite imagery (9/7) is obscured by clouds over most of the western basin, but shows concentrations in Maumee Bay. Sentinel imagery from 9/6 (not shown) shows the bloom extending east along the Ohio Coast and offshore of Pelee Island up to 20 miles. Winds observed over the weekend (9/7-8) promoted slight mixing of surface bloom concentrations. Toxin concentrations are detectable but have decreased below the recreational threshold throughout all sampling sites. *Keep pets and yourself out of the water in areas where scum is forming*. The persistent cyanobacteria bloom in Sandusky Bay continues. No other blooms are present in Lake Erie.

Forecasts

Winds (5-11 kn) forecast today through Thursday (9/9-12) will promote mixing and net northeastward transport towards the central basin of surface *Microcystis*. -Jima, Davis

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: <http://publicapps.odh.ohio.gov/beachguardpublic/>

Ohio EPA's site on harmful algal blooms: <http://epa.ohio.gov/HAB-Algae>

NOAA's GLERL provides additional HAB data here: http://www.glerl.noaa.gov/res/HABs_and_Hypoxia

The images below are "GeoPDF". Please visit <https://go.usa.gov/xReTC> for instructions on viewing longitude and latitude.

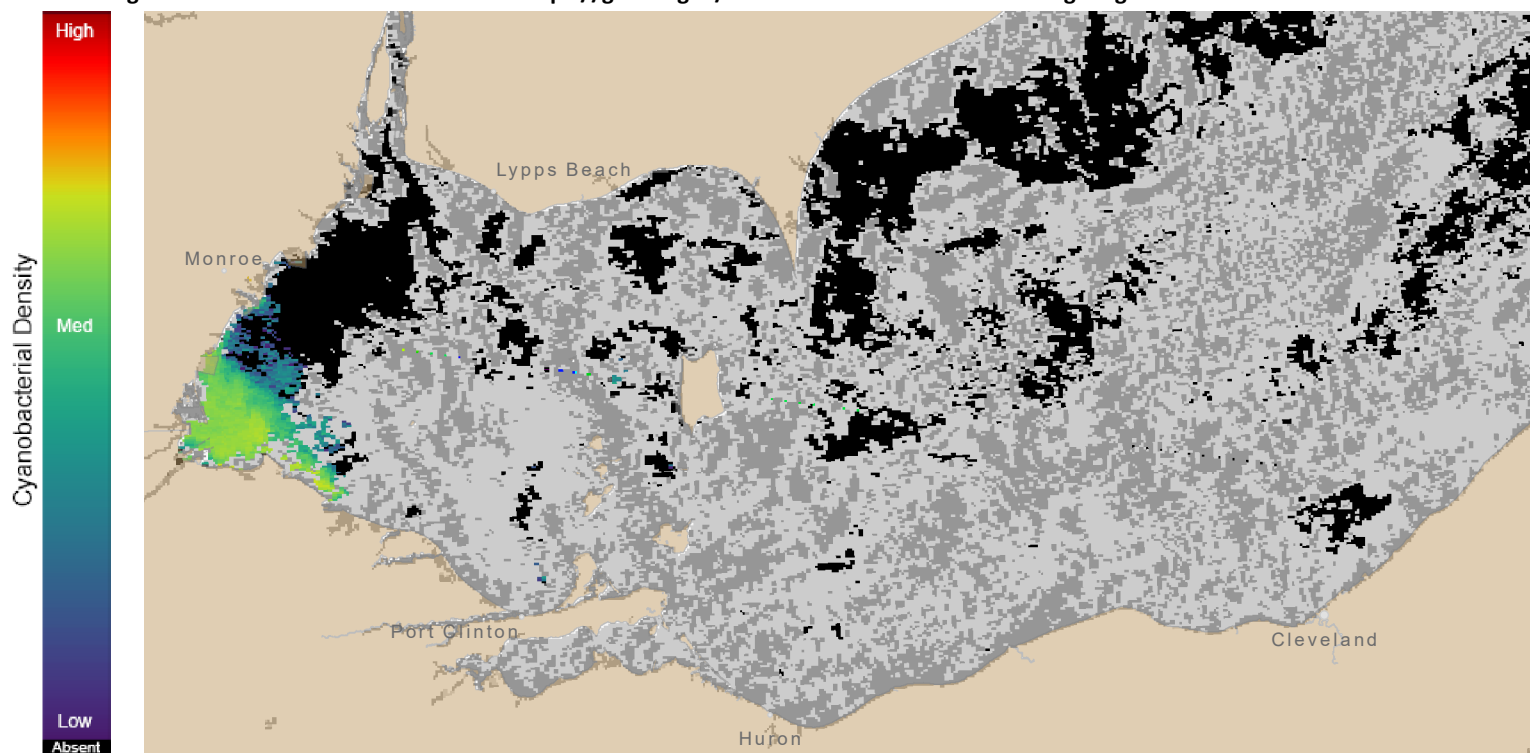


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 07 September, 2019 at 11:20 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

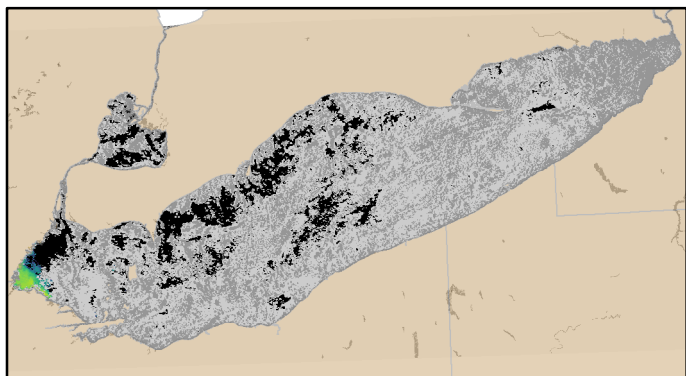
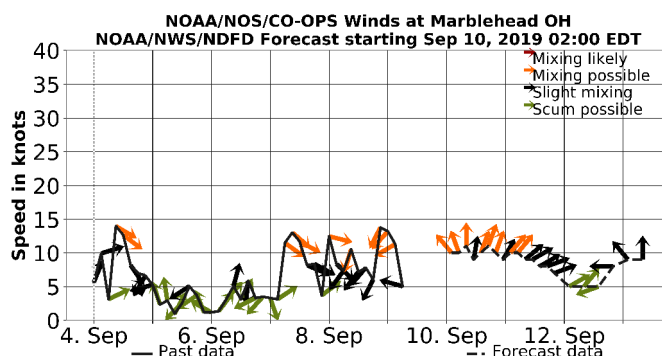


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 07 September, 2019 at 11:20.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

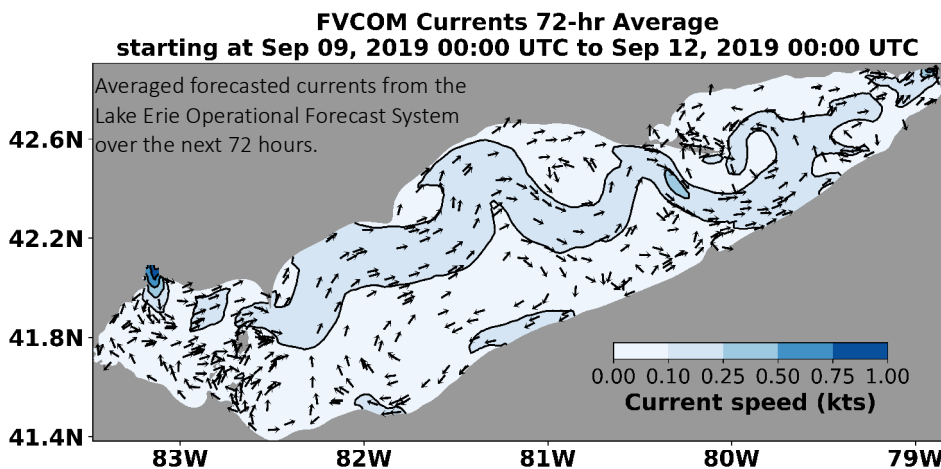
For more information and to subscribe to this bulletin, go to: <https://tidesandcurrents.noaa.gov/hab/lakeerie.html>



Figure 3. Nowcast position of bloom for 09 September, 2019 using LEOFS modelled currents to move the bloom from the 07 September,



Figure 4. Forecast position of bloom for 12 September, 2019 using LEOFS modelled currents to move the bloom from the 07 September,



For more information and to subscribe, please visit the NOAA HAB Forecast page:
<https://tidesandcurrents.noaa.gov/hab/lakeerie.html>